

REMARKS

Claims 3-22 are pending in this application, with claims 6-11 and 13-15 being currently withdrawn from consideration. The pending independent claims not withdrawn from consideration in connection with the present application include claims 3 and 19.

Drawing Objection

The Examiner has requested that Figs. 21A-22B be designated by a legend such as "PRIOR ART". Accordingly, in a Letter to the Official Draftsperson submitted herewith under separate cover, Applicants propose a drawing correction labeling Figs. 21A-22B as "PRIOR ART". Approval of this drawing correction is respectfully requested. Upon approval by the Examiner and allowance of the claims of the present application, Applicants will implement the aforementioned drawing correction into formal drawings.

Prior Art Rejections

The Examiner has rejected claims 1, 3-5, 12, 16 and 18-22 under 35 U.S.C. § 102(b) as being anticipated by Feldman et al. With regard to claim 1, this rejection has been rendered moot in view of the cancellation of claim 1. With regard to the remaining claims, including independent claims 3 and 19, this rejection is respectfully traversed.

Feldman et al.

Feldman et al. is directed to a lamp assembly having a formed foil arrangement. The device includes thin foil members 20c and 22c constructed of molybdenum, essentially uniform in thickness throughout. At least one trough 36 is formed in the foil member, the trough being centrally disposed lengthwise or along the longitudinal direction of the foil member as shown in

Figs. 3 and 5 of the patent for example. The foil members are discussed, with regard to Fig. 3, in col. 5, lines 52-58; and with regard to Fig. 5, in col. 6, lines 35-52.

Distinctions from Feldman et al.

Claim 3 of the present application (and somewhat similarly claim 19 of the application as well) has been amended to clarify that the corrugated structure in at least one of a pair of metal foils of a discharge lamp has a wave crest extending in a direction of a relatively shorter side of the metal foil. At least such a limitation is not taught or suggested in Feldman et al. as will be explained as follows.

Feldman et al. arguably teaches a type of trough 36, wherein the trough extends in a longitudinal direction, namely along the entire length of the foil member (see col. 6, lines 35-44 for example). As such, with the trough extending along the length or longer side of the foil member, Feldman et al. clearly fails to teach or suggest a corrugated structure having a wave crest “extending in a direction of a **relatively shorter side** of the metal foil” as claimed in independent claims 3 and 19 (emphasis added).

As previously stated, Applicants have amended each of claims 3 and 19 to clarify the above-mentioned distinction over Feldman et al. These amendments to the claims are supported by at least page 31, lines 15-20 of the present application. By including at least one of a pair of metal foils having a corrugated structure which has a wave crest extending in a direction of a relatively shorter side of the metal foil, stress that may cause the metal foil to split a sealing portion surrounding the metal foil in the longitudinal direction the metal foil can be reduced, such as in situations when pressure in the inner portion of the bulb of the lamp itself is high.

Applicants respectfully submit that Feldman et al. fails to teach or even suggest the use of a corrugated structure in at least one of the pair of metal foils, having a wave crest extending in a direction of a relatively shorter side of the metal foil as claimed in claims 3 and 19 for the following reasons.

According to the teachings of Feldman et al. since the wave crest of the corrugated structure extends in a longitudinal or along the entire length of the foil member, stress potentially causing the metal foil to split the sealing portion in the longitudinal direction of the metal foil cannot be reduced. Hence, Feldman et al. fails to recognize the potential advantage of preventing cracking of the sealing portion for sealing at least one of the pairs of metal foil in the longitudinal direction of the metal foil. Feldman et al. explicitly provides a teaching for strengthening thin film foil members 20c and 22c by way of troughs 36 that are formed lengthwise on the foil member (col. 5, lines 55-57) and specifically provides teaching or suggestions of only troughs extending the length of the foil members, and not along the relatively shorter side of at least one of the pair of metal foils as claimed in claims 3 and 19 (see col. 6, lines 35-44 of Feldman et al., for example). Without such a teaching or suggestion, Feldman et al. cannot anticipate and cannot render the invention claimed in claims 3 and 19 obvious. Even to render a claim limitation obvious, some explicit teaching or suggestion of a particular desired modification must be mentioned in the prior art reference, or must be within the purview of the knowledge of one of ordinary skill in the art. Without some type of evidence, a finding of anticipation or obviousness cannot be made. See *In re Dembiczak*, 50 USPQ2d 1614 (Fed. Cir. 1999).

Further, Applicants respectfully submit that Feldman et al. also essentially **teaches away** from a corrugated structure of at least one of a pair of metal foils having wave crest extending in a

direction of a relatively shorter side of the metal foil as claimed in claims 3 and 19. This is because Feldman et al. specifically provides teachings of troughs 36 in metal foil members 20c and 22c, extending along the entire length of the foil member.

References are said to teach away from a combination when the combination would produce a seemingly inoperative device (see *In re Spinnoble*, 160 USPQ 237, 244 (CCPA 1969)). Applicants respectfully submit that by explicitly providing a teaching of providing troughs 36 along an entire length of a foil member, Feldman et al. actually teaches away from a corrugated structure having a wave crest extending in a direction of a relatively shorter side of the metal foil since the inclusion of such wave crest, as claimed in claims 3 and 19, in the device that Feldman et al. would render a seemingly inoperative device with troughs extending both along the entire length and along a width of a relatively shorter side of the foil members. There is no teaching or suggestion in Feldman et al. not to include troughs extending along the entire length of the foil member and thus, the inclusion of troughs extending along a width of the foil member would merely create bumps along the length and width of the foil member which would probably not aid in strengthening the foil members. As such, not only is there no specific teaching or suggestion of modifying Feldman et al., but Feldman et al. actually provides a type of teaching away from any type of device which would render Applicants' claims 3 and 19 obvious.

Accordingly, for at least the aforementioned reasons, Applicants respectfully submit that Feldman et al. fails to both anticipate and render independent claims 3 and 19 obvious. Thus, withdrawal of the Examiner's rejection is respectfully requested. Further, with regard to each of the remaining claims, these claims are allowable for at least the reasons previously presented regarding the aforementioned independent claims.

Additional Rejection

Additionally, the Examiner rejects claims 17 under 35 U.S.C. § 103 as being unpatentable over Feldman et al. in view of Applicants' admitted prior art. Applicants respectfully submit that even assuming *arguendo* that Applicants' admitted prior art could be combined with Feldman et al., which Applicants do not admit, Applicants' admitted prior art would still fail to make up for at least the previously mentioned deficiency of Feldman et al. Accordingly, Applicants respectfully submit that claim 17 is allowable over the alleged combination of Feldman et al. and Applicants' admitted prior art.

CONCLUSION

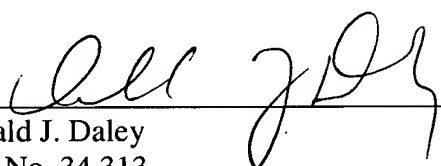
Accordingly, in view of the above-noted remarks, reconsideration of the objections and rejections and allowance of each of pending claims 3-22 in connection with the present application is earnestly solicited.

In the event that any matters remain at issue in the application, the Examiner is invited to contact the undersigned at (703) 668-8000 in the Northern Virginia area, for the purpose of a telephonic interview.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachments: Marked-up Version of Amended Claims
Drawing Change Authorization Request
Information Disclosure Statement with one (1) Reference

MARKED-UP VERSION OF THE CLAIMS

The claims have been amended as follows:

3. (Currently Amended) A discharge lamp comprising:

a luminous bulb in which a luminous material is enclosed and a pair of electrodes are opposed in the luminous bulb; and

a pair of sealing portions for sealing a pair of metal foils electrically connected to the pair of electrodes, respectively;

wherein each of the pair of metal foils has an external lead on a side opposite to a side electrically connected to a corresponding electrode of the pair of electrodes,

at least one of the pair of metal foils has a corrugated structure in which the metal foils are corrugated along a longitudinal direction of the metal foils, wherein the corrugated structure has a wave crest extending in a direction of a relatively shorter side of the metal foil, and

the metal foil having the corrugated structure has at least one wave portion in an area between an end of the electrode and an end of the external lead of the metal foil.

19. (Currently Amended) A method for producing a discharge lamp comprising the steps of:

(a) preparing a pipe for a discharge lamp including a luminous bulb portion and a side tube portion extending from the luminous bulb portion; and an electrode assembly including a metal foil, an electrode connected to the metal foil, and an external lead connected to the metal foil on a side opposite to a side connected to the electrode;

(b) inserting the electrode assembly into the side tube portion so that an end of the electrode is positioned inside the luminous bulb portion;

(c) attaching the side tube portion to the metal foil by reducing a pressure in the pipe for a discharge lamp and heating and softening the side tube portion after the step (b); and

(d) forming [a twist structure or] a corrugated structure, which has a wave crest extending in a direction of a relatively shorter side of the metal foil, in the metal foil by applying an external force to the metal foil after the step (b).

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Claims 1 and 2 are canceled.